BRIEF

PORTFOLIO OF CHOICE

Virtual Schooling

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CCNETWORK National Center

Choice Strengthening the State of Choice in America's Schools

Portfolio of Choice: Virtual Schooling

The National Comprehensive Center

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Key Takeaways

- In 2017, approximately 300,000 students were enrolled in 501 full-time virtual schools, less than 1 percent of K–12 enrollment nationwide.
- Students enrolled in virtual schools are more likely to be White and are less likely to be low-income than the population as a whole.
- Virtual schools can be operated as public, private, magnet, charter, or homeschools. As a result, virtual school policy typically falls under states' existing regulatory structures for these school types, creating several gaps that policymakers should consider addressing, including policies related to teacher training and recruitment, enrollment, funding, and accountability.
- Nationally, more than half of public virtual schools are operated by school districts, but 60 percent of virtual school students are enrolled in schools operated by for-profit companies.
- Student performance in virtual schools is consistently below that of brick-and-mortar schools.

Introduction

Today's virtual schools trace their roots to late nineteenth-century "correspondence schools," which allowed students to receive materials in the mail and learn at home.[1] As technology developed, this type of distance-learning experience shifted its delivery method to radio, television, and satellite broadcasts. In the 1960s, The University of Illinois Urbana-Champaign launched the Programmed Logic for Automatic Teaching Operations project (PLATO), which used computers to deliver instructional content to learners in classroom and lab settings.[2]

The confluence of these two ideas—distance learning and computer-assisted learning—became what we now think of as virtual learning. In 1995, nine teachers in Eugene, Oregon, launched the first incarnation of today's virtual schools. That project, the CyberSchool Project, used computer-assisted distance learning to provide supplemental high school courses to students online.[3] The following year, the federal government started offering grants to support virtual schooling, with web-based learning soon reaching students in 10 states.[4]

[1] https://www.educationnext.org/the-virtual-revolution-understanding-online-schools/

[2] https://static1.squarespace.com/static/59381b9a17bffc68bf625df4/t/593efc779f745684e6ccf4d8/1497300100709/EEG_KP2016-web.pdf/ p. 58

[3] https://www.educationnext.org/the-virtual-revolution-understanding-online-schools/

[4] https://www.politico.com/agenda/story/2015/09/virtual-schools-education-000227/

Today, nearly all states either offer or allow digital learning in some form, with instruction provided by a variety of providers.[5] This instruction typically takes one of three forms:

- **Full-time virtual schools:** Students take their entire course load online via an independent, charter, or district-sponsored program.[6]
- **Blended learning models:** Students take a mix of online and face-to-face instruction throughout the school day, within a brick-and-mortar setting (see box below).[7]
- **Online coursework:** Individual courses that students who attend school in traditional brick-and-mortar schools take to supplement or expand their education (see box below).[8]

Enrollment in virtual schools, blended learning schools, and online coursework has increased steadily over the last two decades as the use of computers and tablets for learning has become more common. Given the growth, policymakers need to understand the challenges facing virtual schools and the opportunities they provide to ensure that families have access to high-quality virtual school options. This brief focuses primarily on full-time virtual schools. Its goal is to provide policymakers with an understanding of the policy landscape in which virtual schools are operating as well as an overview of the types of entities that operate virtual schools, the students who enroll in them, and their performance.

Online Courses

While this brief focuses specifically on full-time virtual schools, many students enrolled in traditional brick-and-mortar schools take advantage of online courses. These courses are used to supplement or complement a student's learning. Rural and small schools often take advantage of online coursework to provide students with access to a greater breadth of course options, however, any K–12 school can offer online courses to students. Most commonly, schools opt for online courses to provide students with opportunities to take advanced or AP coursework or to support students with disabilities who need supplemental instruction that is self-paced and competency-based.

School districts, state departments of education, colleges and universities, and for-profit and nonprofit companies can all develop and offer online courses.[9] Because of the breadth of providers, it's difficult to get an accurate count of the number of students who take online courses. But as of 2016, approximately 1.5 million students—or about 3 percent of all K–12 students nationwide—participated in school-related coursework online.[10] Five states currently require high school students to take one or more online courses as a graduation requirement.[11]

[5] https://static1.squarespace.com/static/59381b9a17bffc68bf625df4/t/5df14d464ba53f72845791b2/1576095049441/DLC-KP-Snapshot2019.pdf

[6] https://charterschoolcenter.ed.gov/sites/default/files/Virtual%20Schools%20Accountability%20Report.pdf p. 7

[7] https://charterschoolcenter.ed.gov/sites/default/files/Virtual%20Schools%20Accountability%20Report.pdf p. 7

[8] https://charterschoolcenter.ed.gov/sites/default/files/Virtual%20Schools%20Accountability%20Report.pdf p. 7

[9] https://static1.squarespace.com/static/5a98496696d4556b01f86662/t/5e61341d879e630db4481a01/1583428708513/DLC-KP-Snapshot2020.pdf p. 18

[10] Author's calculation based on 50.6 million public elementary and secondary students in 2016. https://nces.ed.gov/programs/coe/indicator_cga.asp

[11] https://news.elearninginside.com/five-states-require-online-learning-credits-high-school-graduation/ 4.28.20

What is a Virtual School and Why Do Families Choose Them?

In virtual schools that enroll students full time, students access all of their coursework through the internet and communicate with their teachers online or over the phone.[12] In many ways, they are like typical schools: they enroll students, are listed as schools by the National Center for Education Statistics (NCES), and, if they are public schools, they receive per-pupil funding from the states in which their students live.[13] But while all virtual schools provide instruction online, their structure and approach varies across six key dimensions, summarized in Figure 1.

Figure 1. Dimensions of virtual schools

Dimension	Description
Comprehensiveness	Whether the activity offers a complete educational experience or is supplemental
Reach	Whether the school enrolls students within a single district, worldwide, or somewhere in between
Type	Whether public, private, charter, contract, magnet, or homeschool
Location	Whether in school, at home, somewhere else, or a combination
Delivery	Whether synchronous and/or asynchronous
Operational management	Whether run by a school district, university, state, other provider, or some combination

Source: *EducationNext,* The Virtual Revolution.

Because the structure of virtual schools can vary so substantially, this education model gives families considerable flexibility compared to traditional brick-and-mortar schools. It also provides parents with access to educational content and instruction, something that another flexible schooling option, homeschooling, lacks. Families opt for virtual schools for a variety of reasons, including:[14]

- Students want to pursue passions such as arts, athletics, or hobbies requiring scheduling flexibility.
- Students have mental or physical health issues requiring flexibility and/or substantial parent involvement.
- Students have experienced negative conditions in a brick-and-mortar setting, such as bullying or social-emotional challenges.
- Parents want to educate their children at home, but need instructional support or assistance with content and materials.

[12] https://credo.stanford.edu/sites/g/files/sbiybj6481/f/online_charter_study_final.pdf p. 4

[13] https://static1.squarespace.com/static/5a98496696d4556b01f86662/t/5e61341d879e630db4481a01/1583428708513/DLC-KP-Snapshot2020.pdf p. 7

[14] https://static1.squarespace.com/static/5a98496696d4556b01f86662/t/5e61341d879e630db4481a01/1583428708513/DLC-KP-Snapshot2020.pdf p. 8

» Students need to advance at their own pace, whether they are academically ahead of their classmates, struggling to keep up, or simply desire flexibility in pacing.

Depending on a family's particular needs, they can search for schools with the specific dimensions that best meet those needs.

Blended Learning

What is blended learning?
Blended learning describes any combination of online learning and site-based, in-person education.[15] However, it involves more than just mixing in-person instruction with technology. Those elements must complement each other in a way that creates a deeper learning experience rather than merely duplicating course content in various formats.[16] Although several types of blended learning models exist, the most common model involves students attending a brick-and-mortar school where they alternate between online (asynchronous) and instructor-led (synchronous) learning.

Like full-time virtual schools, a variety of entities, including school districts, for-profit education management organizations, and nonprofit charter management organizations, operate blended learning schools.

Who do blended learning schools serve?
As of the 2017-18 school year, 300 blended learning schools operated across 33 states and served nearly 133,000 students.[17] These schools serve a higher percentage of Hispanic students and a smaller percentage of White and Black students as compared to the K–12 population as a whole. About half of these students are low-income, on par with the national average.[18]

How do students attending blended learning schools perform?
Research suggests that student performance is higher in blended learning schools than in full-time virtual schools, but the pattern of findings for blended learning schools is not conclusively positive.

» Less than half of blended learning schools received an acceptable rating based on their respective states' definitions.[19]
» A meta-analysis of blended learning in K–12 mathematics classes found a small but positive effect on student achievement in math, with a slightly higher effect for elementary students.[20]
» Blended learning was found to enhance achievement in previously low-achieving students perhaps because of the repetitive basic skills provided in competency-based online programs.[21]
» Several studies have shown an increase in student engagement through blended learning, suggesting the combination of teacher and online instruction may be beneficial to improving student attentiveness and, by extension, performance.[22]

[15] https://static1.squarespace.com/static/59381b9a17bffc68bf625df4/t/5df14d464ba53f72845791b2/1576095049441/DLC-KP-Snapshot2019.pdf p. 7

[16] https://www.panopto.com/blog/what-is-blended-learning/

[17] http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf

[18] http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf pgs. 23, 24

[19] http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf

[20] https://scholarworks.uni.edu/cgi/viewcontent.cgi?article=1116&context=grp p. 6

[21] https://scholarworks.uni.edu/cgi/viewcontent.cgi?article=1116&context=grp p. 20

[22] https://scholarworks.uni.edu/cgi/viewcontent.cgi?article=1116&context=grp p. 34

Who Enrolls and in What Type of Virtual School?

Due to the many educational services provided online, and because online education offerings have evolved significantly since the mid-1990s, reliable data on enrollment in full-time virtual schools in particular is hard to come by. In the early days of virtual schooling and online coursework, enrollment data was typically captured in the aggregate, representing the number of students who were educated online for any portion of their learning. Enrollment in full-time virtual schools was not captured separately. However, estimates suggest that in 2000, fewer than 25,000 students were enrolled in full-time virtual schools.[23] NCES began reporting enrollment in virtual schools for the 2013–14 school year. That year, 478 virtual schools educated just shy of 200,000 students—less than one-half of one percent of the nation's total K–12 enrollment.[24]

As of 2017–18, nearly 300,000 students were enrolled in 501 full-time virtual schools, still well under 1 percent of the nation's nearly 51 million public school students.[25] As Figure 2 demonstrates, enrollment in statewide, fully-online schools is heavily concentrated in a few states. The five states with the largest virtual school enrollments—California, Pennsylvania, Florida, Michigan, and Ohio—together account for more than half (56%) of all virtual school students nationwide.[26]

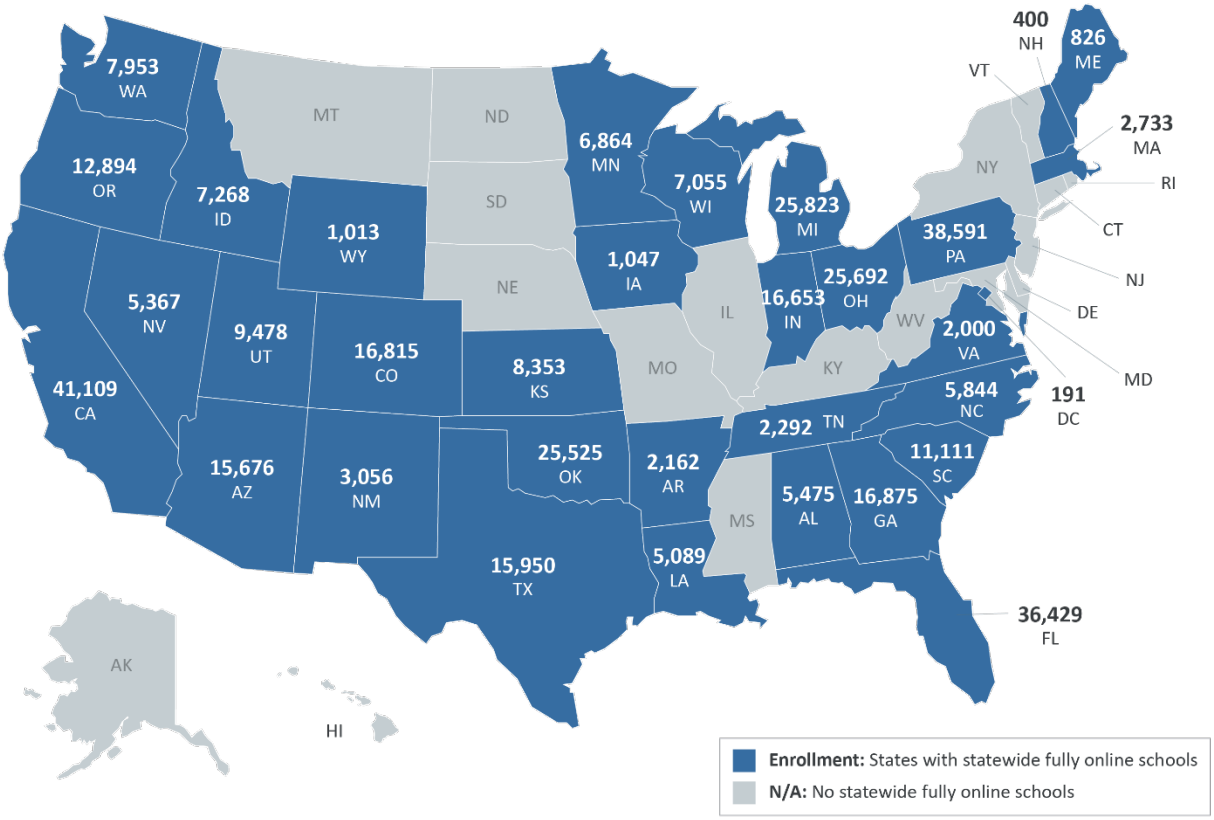
[23] http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf Figure 1 on p. 17

[24] https://nces.ed.gov/ccd/tables/201314_Virtual_Schools_table_3.asp

[25] http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf

[26] https://static1.squarespace.com/static/5a98496696d4556b01f86662/t/5e61341d879e630db4481a01/1583428708513/DLC-KP-Snapshot2020.pdf

Figure 2. States with statewide, fully online virtual schools, and number of students enrolled



Source: https://static1.squarespace.com/static/5a98496696d4556b01f86662/t/5e61341d879e630db4481a01/1583428708513/DLC-KP-Snapshot2020.pdf, p. 10.

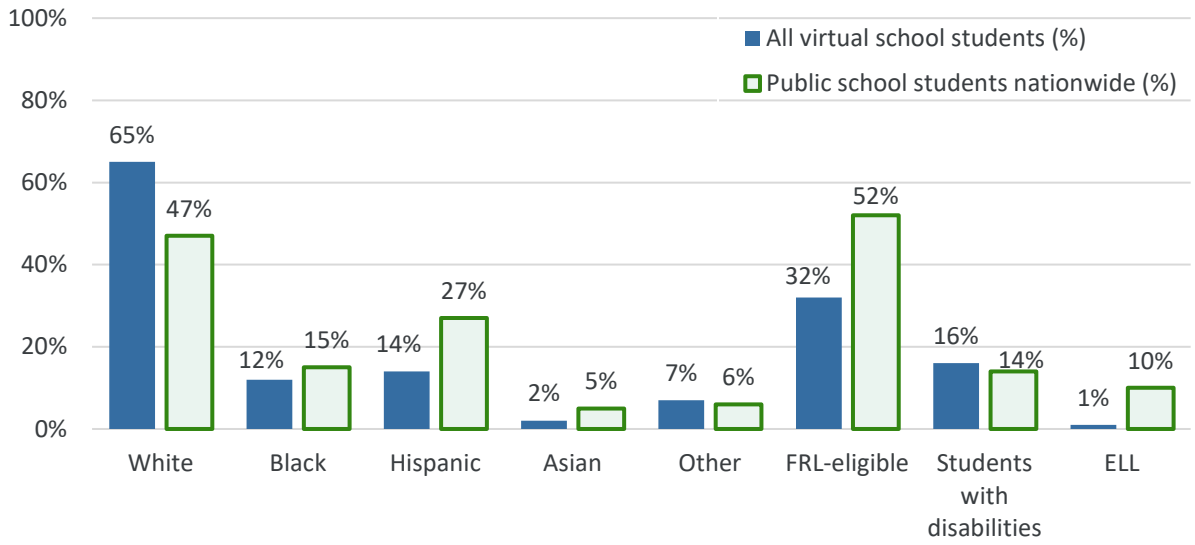
Data on the demographics of students enrolled in virtual schools suggest that as a population they are more likely to be White and slightly more likely to have a disability than the K–12 population as a whole. Students enrolled in virtual schools are less likely to be low-income or to be English language learners (see Figure 3).[27]

[27] http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf p. 23; https://nces.ed.gov/fastfacts/display.asp?id=372#PK12_enrollment

https://nces.ed.gov/programs/digest/d18/tables/dt18_204.10.asp?current=yes;

https://nces.ed.gov/fastfacts/display.asp?id=64; https://nces.ed.gov/programs/coe/indicator_cgf.asp

Figure 3. Demographics of virtual school students



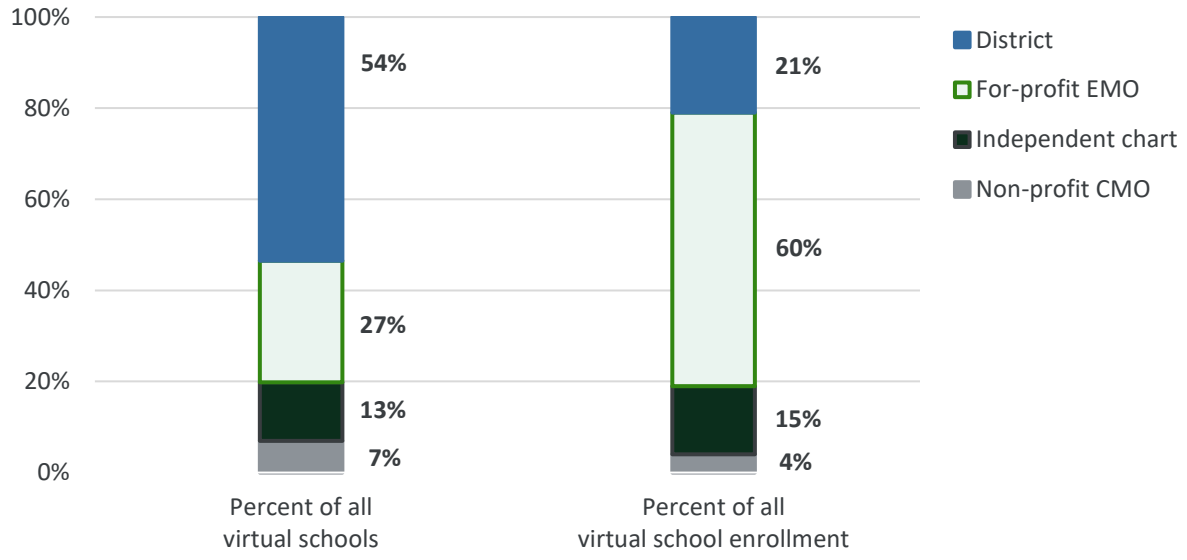
Enrollment in virtual schools is lowest in the elementary grades and increases consistently through the middle and high school grades. For example, of all students enrolled in virtual schools, less than 4% are in kindergarten while more than 14% are in grade 12. This contrasts with a relatively stable distribution of traditional public school students across grade levels—about 8% of all traditional public students are enrolled in each grade level at any given time.[28]

Public virtual schools are operated either by local school districts or as charter schools. Virtual charter schools can be operated by for-profit education management organizations (EMOs), nonprofit charter management organizations (CMOs), or as charter schools that are independent and unaffiliated with a school management company. As Figure 4 illustrates, district-operated virtual schools account for slightly more than half of all virtual schools nationwide. However, those schools account for just one-fifth of total virtual school enrollment. This is likely because district-operated virtual schools limit enrollment to the students living within the district's catchment zone, while charter-operated virtual schools are more likely to be open enrollment, drawing students across district, and even state, lines.[29]

[28] http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf p.28

[29] http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf p. 17.

Figure 4. Distribution of public virtual schools by operator type



NOTE: Author's calculations based on data from Tables 1 and 2, pages 18-19 in http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf

For-profit EMOs, on the other hand, operate about one-quarter of all virtual schools, yet enroll 3 out of every 5 virtual school students. The two largest virtual school operators, for-profit EMOs K12 Inc. and Connections Academy, operate in multiple states, and together account for nearly half (48%) of all virtual school enrollment nationwide.[30]

How Do States Approach Virtual School Policy?

As noted in Figure 1, virtual schools can be operated as public, private, magnet, charter, or homeschools. Because virtual schools are subsets of existing school types, states tend not to have comprehensive legislation addressing them specifically. Instead, the degree to which different states regulate virtual schools is a function of the degree to which they regulate any schools falling into those various categories. Virtual schools run by public school districts or by public charter management organizations would be subject to the laws and regulations addressing district or charter-operated brick-and-mortar schools; those operated by private companies would be expected to adhere to the laws and policies governing other private schools in the state, and so on.

However, many aspects of virtual schools can be incompatible with the regulatory structure in place for brick-and-mortar schools, which makes setting virtual school policy challenging. For example, enrollment and attendance are fundamental concepts in schooling that also serve as primary drivers for funding formulas. But virtual schools may approach who is eligible to enroll and how students "attend" school very differently. Often, those differences are the source of their appeal to families and students. But those differences can also pose challenges for policymakers seeking to ensure virtual schools are fiscally, operationally, and academically sound.

[30] http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf

Teacher Recruitment and Training

Teacher recruitment, retention, and training is challenging for many schools, but it poses unique challenges for virtual schools. Most teacher preparation programs do not prepare candidates to teach online,[31] despite the fact that it is a distinct teaching and learning environment that requires its own set of skills. Unlike classroom teaching, where teachers often see students for several hours a day, online teachers may have little synchronous time to instruct students, build relationships, and facilitate communication among students in a class. They tend to have fewer than 5 hours per week of synchronous instruction with their students. Direct instruction is typically less than 60 minutes per week.[32] Virtual school teachers are also managing large class sizes. Brick-and-mortar schools have an average of 16 students per teacher. In virtual schools, it is triple that, at 45 students per teacher.[33] Even exemplary teachers' in-person instructional skills do not necessarily translate to online teaching, which requires an expanded and professionally developed set of skills.[34]

Student Attendance

School attendance is an important factor in student achievement.[35] Lack of regular school attendance has negative implications for students' overall academic performance. In high school, absenteeism can make it challenging for students to accrue the credits they need to graduate. Chronic absenteeism is a strong predictor that a student might not graduate on time or at all.[36] As such, schools track student attendance by taking attendance at a single point in time each day or at the beginning of every class period.

This approach makes sense in brick-and-mortar schools. However, "attendance" means something different in a virtual school, where students do not attend in person, may not have a set schedule of courses, and have much less engagement with their teachers.[37] Some states have pushed for legislation to require virtual schools to track attendance in terms of student engagement, rather than simple enrollment. Colorado, for example, requires that virtual schools track attendance using one of three methods: log in time, task completion, or lesson/unit completion.[38] This approach helps ensure that schools are capturing in their attendance only the students who are meaningfully engaged in coursework.

[31] https://charterschoolcenter.ed.gov/sites/default/files/Virtual%20Schools%20Accountability%20Report.pdf p. 2

[32] Gill, Brian, Lucas Walsh, Claire Smither Wulsin, Holly Matulewicz, Veronica Severn, Eric Grau, Amanda Lee, and Tess Kerwin. Inside Online Charter Schools. Mathematica Policy Research. October 2015. p. 15

[33] https://files.eric.ed.gov/fulltext/ED591990.pdf

[34] https://www.gssaweb.org/wp-content/uploads/2016/04/Best-Practices-in-K–12-Online-and-Hybrid-Courses.pdf p. 10

[35] https://www.attendanceworks.org/wp-content/uploads/2017/09/Research2016.pdf

[36] https://www.brookings.edu/research/chronic-absenteeism-an-old-problem-in-search-of-new-answers/

[37] https://www.americanprogress.org/issues/education-K–12/reports/2018/10/10/459041/profit-before-kids/

[38] https://www.cde.state.co.us/sites/default/files/documents/onlinelearning/download/ol_attendance_guidance.pdf

Funding and Enrollment

There are several common approaches to counting students for the purposes of determining enrollment:[39]

- Single count date: A count on one day near the beginning of the school year.
- Multiple count dates: A calculation based on two or more count dates during the school year.
- Average daily attendance (ADA): An average daily count during all or most of the year of students in attendance.
- Average daily membership (ADM): An average daily count during all or most of the year of students enrolled.
- Single count period: An average of a daily count during an established period near the beginning of the year.
- Multiple count periods: An average of a daily count during two or more periods during the year.

Student enrollment counts matter because most state funding formulas send funds to districts and schools based in part on the number of students enrolled. In most states, virtual schools are funded using the same per-pupil funding formula as traditional brick-and-mortar schools. Just five states had school funding formulas specific to virtual schools as of 2015.[40] This is despite the fact that the cost model for virtual schools is largely unknown. Some research suggests that virtual schools tend to have lower costs associated with teacher salaries (due to higher student-teacher ratios), food service, or transportation, while they are likely to have higher costs associated with acquiring high-quality curricular materials and maintaining a robust digital infrastructure compared to brick-and-mortar schools.[41] However, the wide variation in virtual schools' models makes it difficult to generalize without better research and data.

Understanding enrollment and its relationship to school funding is especially important given that virtual schools tend to have larger enrollments than traditional brick-and-mortar schools because they are not confined by the limits of a physical building or, depending on how eligibility to enroll is determined, the geographic accessibility for families. In 2016, the average brick-and-mortar public school enrolled about 530 students.[42] The average virtual school enrollment is closer to 600 students,[43] but varies by the kind of operator (e.g., school district, nonprofit CMO, independent charter school, or for-profit EMO). Those operated by for-profit organizations have much larger

[39] https://www.coloradokids.org/wp-content/uploads/2015/01/Student-Enrollment-Count-Mechanisms-for-School-Funding-Aug-2010.pdf

[40] https://www.americanprogress.org/issues/education-K–12/reports/2018/10/10/459041/profit-before-kids/

[41] https://nepc.colorado.edu/sites/default/files/publications/RB%20Section%20III%20with%20blurb.pdf

[42] https://nces.ed.gov/programs/digest/d18/tables/dt18_214.40.asp

[43] Author's calculation based on number of schools and enrollment as of 2017–18 from http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf

average enrollments—nearly 1,400 students.[44] Only Maine and Michigan place a limit on the number of students who can enroll in charter-operated virtual schools.[45]

As states and school districts contract with providers, they should ensure that they are clear on what they are buying. In other words, they must understand how the provider counts enrollment and how that relates to the state's funding approach to ensure that the provision of instruction is at least equivalent to what would be provided under the same funding scenario in public brick-and-mortar schools.

Accountability

Policymakers have struggled with an accountability approach for virtual schools. The examples in the sections above demonstrate challenges related to fiscal and operational accountability. However, there are also issues related to holding virtual schools accountable for the academic performance of their students, which, on average, falls well below that of brick-and-mortar schools.

In most states, charter-operated virtual schools are held accountable by their state's authorizers. District-operated virtual schools are generally held to the same accountability standards as other brick-and-mortar district schools.[46] A few states provide additional oversight, specifically for virtual charter schools. In Arizona, for example, new virtual schools open on a probationary status until they demonstrate improvement in students' academic performance.[47] However, these kinds of policies tend to be the exception rather than the norm. Even when existing accountability measures identify persistently low-performing virtual schools, few states have been able to successfully close them, as attempts at closure frequently become mired in legal action.[48]

The proliferation of for-profit operators in the virtual schools sector is an underlying thread across all of these challenges. As most states' policies do not distinguish between virtual and brick-and-mortar schools, neither do they differentiate between for-profit or nonprofit operators. (It should be noted that in all states but Arizona, individual schools and their boards must be nonprofit organizations. However, these nonprofit boards can contract with for-profit companies to operate their schools.) Virtual schools operated by for-profit companies account for 60 percent of all virtual school enrollment nationwide. Certainly not all of them have malicious intent, but the existing virtual school policy landscape makes it too easy for bad actors to take advantage of gaps in oversight related to enrollment, funding, and accountability.

For example, in 2018, the Electronic Classroom of Tomorrow (ECOT), a for-profit EMO that operated the largest fully virtual school in Ohio, was forced to close after it failed to verify

[44] http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf

[45] http://ecs.force.com/mbdata/MBQuestNB2C?rep=CS2025

[46] https://charterschoolcenter.ed.gov/sites/default/files/Virtual%20Schools%20Accountability%20Report.pdf and https://www.qualitycharters.org/wp-content/uploads/2018/03/NCSRC-Virtual-Accountability-Paper-FINAL.pdf

[47] http://ecs.force.com/mbdata/mbquestNB2C?rep=CS1727

[48] https://www.the74million.org/article/3-states-tried-to-shutter-failing-for-profit-online-charter-schools-a-suspicious-pattern-of-allegations-accusations-and-legal-complaints-quickly-followed/

enrollment for the nearly 15,000 students it claimed on its roster, and could not pay back the nearly $60 million in per-pupil funding it received from the state.[49] In early 2020, a special investigation by state auditors in Indiana found that two virtual school operators collected and misspent more than $85 million in state funding through fraudulent enrollment practices.[50] These and other high-profile scandals point to several issues resulting from the lack of comprehensive virtual school policies.

In light of these and other high-profile scandals that have arisen from gaps and loopholes in existing policies, which don't fully address the unique structures and needs of virtual schools, school leaders and policymakers should re-evaluate and re-tool existing policies and look for ways to strengthen the operation and outcomes of virtual schools.

What Do We Know About the Performance of Virtual Schools?

Research consistently demonstrates that students attending virtual schools do not perform as well as their peers who attend traditional brick-and-mortar schools.[51] There are several trends worth noting:

- In general, district-operated virtual schools outperform charter-operated virtual schools.[52]
- Students transferring from brick-and-mortar schools to virtual charter schools experienced large, negative effects in math and ELA achievement that persisted over time.[53]
- Among charter-operated virtual schools:
  - The majority (67%) of **virtual charter schools, regardless of operator type, perform worse than traditional public schools.** Just 2 percent outperformed comparison schools.[54]
  - The majority of virtual charter students had **far weaker academic growth in both reading and math** compared with traditional public school peers.[55]
  - **Independent virtual charter schools outperform** both nonprofit and for-profit EMO virtual charter schools,[56] while those operated by **for-profit EMOs have the worst outcomes** in terms of percentage of schools meeting state proficiency standards.[57]

[49] https://www.daytondailynews.com/news/ecot-ohio-largest-online-charter-school-officially-closing-friday/QTooP5B1yapQFlb5t8wLsJ/

[50] https://in.chalkbeat.org/2020/2/12/21178564/in-a-damning-audit-indiana-calls-on-two-virtual-schools-to-repay-85-million-in-misspent-state-funds

[51] https://www.edsurge.com/news/2019-05-28-despite-poor-performance-virtual-school-enrollment-continues-to-grow

[52] http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf

[53] http://creo.nd.edu/images/Fitzpatrick_et_al._in_press_ER_Virtual_CPS.pdf

[54] https://credo.stanford.edu/sites/g/files/sbiybj6481/f/online_charter_study_final.pdf

[55] https://credo.stanford.edu/sites/g/files/sbiybj6481/f/online_charter_study_final.pdf

[56] http://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf

[57] https://scholarworks.uni.edu/cgi/viewcontent.cgi?article=1116&context=grp page 29. Proponents of virtual schools argue that their schools should be measured against the local districts of virtual students, as that standard could be much different than the state standard.

These trends hold true across racial and ethnic subgroups, for students from different socioeconomic backgrounds, and when accounting for prior achievement,[58] suggesting there is substantial room for improvement in how these schools are operated and held accountable for student performance.

It is possible that some of the performance challenges facing virtual schools is due to an emphasis on serving at-risk and high-need students. Some virtual schools do focus on students at risk of dropping out or on those who are working to recover high school credits they have previously failed. However, there is limited data to determine whether virtual schools are serving disproportionate rates of high-need students,[59] making it impossible to determine the extent to which quality and accountability ought to be determined using alternative measures used for other schools serving large populations of high-need students.

Best Practices for Designing High-Quality Virtual School Policy

Virtual schools play an important role in states' education landscape. They provide options for families who need a great deal of flexibility but who don't have the time or capacity to educate their children themselves. State policymakers have substantial room to improve the policies that govern virtual schools, to improve oversight of them, and to enhance the quality of the education they offer.

The following list provides clear places to begin those discussions.

1. **Develop policies to support the recruitment, retention, evaluation, and training of virtual school teachers.** Recruiting, retaining, evaluating, and training high-quality teachers for virtual schools remains an ongoing challenge. Very few teacher education programs prepare candidates to teach online.[60] As a result, the teachers employed by virtual schools may face significant challenges with instruction, communication, and student engagement. Policymakers can develop structures to support virtual schools in identifying and retaining top-notch teachers as well as evaluating and supporting teachers to improve their practice in a virtual environment. Policymakers might consider developing new licensure requirements or credentials specific to online teaching or providing opportunities for virtual school teachers to access high-quality, research-based professional learning opportunities.
2. **Develop tailored measures to track attendance and enrollment in virtual schools.** Most states track enrollment in virtual schools the same way they track enrollment in brick-and-mortar schools. However, "attendance" means something different in a virtual school, where students may not have a set schedule of courses and have much less engagement with their teachers.[61] This is problematic, as funding is tied to enrollment, and the lack of oversight opens

[58] https://fordhaminstitute.org/national/research/enrollment-and-achievement-ohios-virtual-charter-schools

[59] https://scsc.georgia.gov/resources-guidance/research-best-practices Study of Virtual School Performance and Impact

[60] https://charterschoolcenter.ed.gov/sites/default/files/Virtual%20Schools%20Accountability%20Report.pdf p2

[61] https://www.americanprogress.org/issues/education-K–12/reports/2018/10/10/459041/profit-before-kids/

the door to fraud. Instead, state policymakers ought to consider attendance measures that capture engagement in coursework rather than simple registration, such as tracking student log-in time, task completion, or lesson/unit completion.[62] Approaches like this can give policymakers a better sense of the number of students who are actively participating in virtual schooling.

3. **Establish virtual school-specific funding formulas.** As noted above, as of 2015 just five states had different funding formulas for virtual charter schools.[63] Everywhere else, virtual charter schools are funded using the same per-pupil funding formula as traditional brick-and-mortar schools. This approach does not account for differences in costs between the two types of schools. Moreover, states have experienced challenges with specific operators gaming systems to secure funding fraudulently or without providing expected levels of service. More work is needed to establish policies and processes that safeguard public resources and mitigate loopholes.

   Policymakers ought to consider establishing task forces to better understand the actual costs of virtual schools, which are different from the costs of operating brick-and-mortar schools. Virtual schools have lower costs associated with teacher salaries, food service, and transportation, while potentially having higher costs associated with acquiring high-quality curricula and maintaining a robust digital infrastructure.[64] Policymakers should study these cost differences and use what they learn to develop a funding formula specifically for virtual charter schools.

4. **Strengthen oversight and accountability of virtual schools.** All virtual schools, whether operating as district or charter schools, struggle to produce student learning gains. Those that persistently fail should not continue to operate. In some cases, authorizers have successfully used their states' charter school laws and authorizer policies to close poor-performing virtual schools, but too many continue to operate. Policymakers ought to consider developing accountability structures that are specific to the needs of virtual schools. These structures should focus on which entities can approve the operation of virtual schools, which entities can operate virtual schools, what data and information virtual schools must collect and report; and they must outline academic, operational, and fiscal standards that virtual schools must meet. Critically, these policies must also include clear structures to allow the state, the authorizer, or another entity to intervene when virtual schools fail to meet expectations.

5. **Curb the operation or reach of for-profit operators.** While all virtual schools face challenges, those operated by for-profit operators tend to perform worst in terms of student outcomes. They are also frequently mired in financial scandals. Some of the recommendations above—including developing better methods to track enrollment, fund virtual schools, and hold them accountable—will address key policy gaps that for-profit operators have exploited in some states. However, policymakers might consider enacting policies that specifically constrain the reach of for-profit operators. Some states have done this for other types of schools. For example,

[62] https://www.cde.state.co.us/sites/default/files/documents/onlinelearning/download/ol_attendance_guidance.pdf

[63] https://www.americanprogress.org/issues/education-K–12/reports/2018/10/10/459041/profit-before-kids/

[64] https://nepc.colorado.edu/sites/default/files/publications/RB%20Section%20III%20with%20blurb.pdf

several states have caps on the number of charter schools that can operate in certain cities or statewide. Such policies could include placing limits on the number of students virtual schools can enroll or constraining the boundaries from which they can pull students. Limiting enrollment restricts the per-pupil funds that these schools get, thus capping their profits and perhaps disincentivizing them as operators. Policymakers could also ban schools from contracting with for-profit management organizations altogether.

Key Resources

- Digital Learning Collaborative "Keeping Pace" reports 2004–2016
  - Annual reports on K–12 digital learning
- Aurora Institute
  - Nonprofit organization (formerly known as iNACOL) that works on policy, research, field-building, and convenings designed to transform education systems. Their website includes a resource library of federal and state policy.
- National Standards for Quality Online Learning
  - Provides a set of quality standards for online programs, online teaching, and online courses.
- National Education Policy Center
  - Based at the University of Colorado at Boulder, the NEPC provides a variety of publications and materials relevant to all areas of education policy, including annual reports on the state of virtual schools in the U.S.
- Forum Guide to Elementary/Secondary Virtual Education Data
  - Provides guidance to SEAs and LEAs as they (1) consider the effect of virtual education on established data elements and methods of data collection, and (2) address the scope of changes, the rapid pace of new technology development, and the proliferation of resources in virtual education.
- A Call to Action to Improve the Quality of Full-Time Virtual Charter Public Schools
  - A 2016 joint publication by National Alliance for Public Charter Schools (NAPCS), National Association of Charter School Authorizers (NACSA), and 50CAN that suggests policy changes to improve virtual schools.